

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

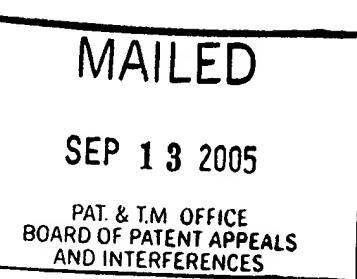
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HENG-MING HSU and YEN-SHIH HO

Appeal No. 2005-1906
Application 09/588,788

ON BRIEF



Before FRANKFORT, McQUADE, and BAHR, Administrative Patent Judges.

Per Curiam

DECISION ON APPEAL

Heng-Ming Hsu et al. originally took this appeal from the final rejection of claims 1, 2, 4 through 8 and 16. The appellants have since canceled claim 2 and amended claim 1, leaving for review the standing rejections of claims 1, 4 through 8 and 16, now the only claims pending in the application.

THE INVENTION

The invention relates to a method for fabricating "planar spiral inductor structures employed within microelectronic fabrications" (specification, p. 1). Representative claims 1 and 4 read as follows:

1. A method for fabricating an inductor structure comprising:

providing a substrate;

forming over the substrate a planar spiral conductor layer comprising a single spiral to form a planar spiral inductor comprising the single spiral, wherein a successive series of spirals within the planar spiral conductor layer comprising the single spiral is formed with a continuous variation in at least one of:

a series of linewidths of the successive series of spirals; and

a series of spacings separating the successive series of spirals.

4. A method for fabricating an inductor structure comprising:

providing a substrate;

forming over the substrate a planar spiral conductor layer to form a planar spiral inductor, wherein a successive series of spirals within the planar spiral conductor layer is formed with a continuous variation in at least one of:

a series of linewidths of the successive series of spirals; and

Appeal No. 2005-1906
Application 09/588,788

a series of spacings separating the successive series of spirals, wherein the successive series of spirals is formed in a shape selected from the group consisting of a triangle, a square, a rectangle, a higher order polygon, a uniform ellipse and a circle.

THE PRIOR ART

The references relied upon by the examiner to support the final rejection are:

| | | |
|-------------------------------|-----------|---------------|
| Romankiw et al. (Romankiw) | 4,295,173 | Oct. 13, 1981 |
| Ohmura et al. (Ohmura) | 4,392,013 | Jul. 05, 1983 |

THE REJECTIONS

Claims 1, 4 through 6, 8 and 16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Romankiw.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Romankiw in view of Ohmura.

Attention is directed to the brief (filed July 19, 2004) and answer (mailed October 15, 2004) for the respective positions of

the appellants and examiner regarding the merits of these rejections.

DISCUSSION

I. The examiner's rejections

We shall not sustain the standing 35 U.S.C. § 102(b) rejection of claims 1, 4 through 6, 8 and 16 as being anticipated by Romankiw or the standing 35 U.S.C. § 103(a) rejection of claim 7 as being unpatentable over Romankiw in view of Ohmura. For the reasons expressed below, the scope of claims 1, 4 through 8 and 16 is indefinite. Hence, the standing prior art rejections must fall since they are necessarily based on speculative assumption as to the meaning of the claims. See In re Steele, 305 F.2d 859, 862-63, 134 USPQ 292, 295 (CCPA 1962). It should be understood, however, that our decision in this regard stems solely from the indefiniteness of the claimed subject matter, and does not reflect on the adequacy of the prior art evidence applied in support of the rejections.

II. New rejection

Pursuant to 37 CFR § 41.50(b), claims 1, 4 through 8 and 16 are rejected under 35 U.S.C. 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter the appellants regard as the invention.

The second paragraph of 35 U.S.C. § 112 requires claims to set out and circumscribe a particular area with a reasonable degree of precision and particularity. In re Johnson, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977). In determining whether this standard is met, the definiteness of the language employed in the claims must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art.

Id.

As indicated above, independent claims 1 and 4 recite a method for fabricating an inductor structure comprising, inter alia, the step of forming a planar spiral conductor layer "with a continuous variation in at least one of: a series of linewidths of the successive series of spirals; and a series of spacings

separating the successive series of spirals." The underlying specification (see page 10) describes such a "continuous" variation only by way of contrast with the "progressive and discontinuous" variation of linewidth shown in Figures 1 and 2. These drawing figures depict progressive stepwise changes in the linewidths of successive spirals in a series, thereby resulting in a series of discrete linewidths for the successive series of spirals. Considered in this light, the recitation in claims 1 and 4 of a "continuous" variation is inconsistent with the associated recitations of a "series of linewidths" and a "series of spacings." This inconsistency renders the scope of independent claims 1 and 4, and dependent claims 5 through 8 and 16, indefinite.

Independent claim 1, and dependent claims 5 through 8 and 16, are further indefinite due to the confusing and contradictory recitations in claim 1 of the "single spiral" and the "successive series of spirals." These recitations are unclear both on their face and when read in light of the underlying specification which makes no mention of a "single spiral."

SUMMARY

The decision of the examiner to reject claims 1, 4 through 8 and 16 is reversed, and a new rejection of these claims is entered pursuant to 37 CFR § 41.50(b).

This decision contains a new ground of rejection pursuant to 37 CFR § 41.50(b) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)). 37 CFR § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 CFR § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

- (1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

Appeal No. 2005-1906
Application 09/588,788

(2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

REVERSED; 37 CFR § 41.50(b).

Charles E. Frankfort

CHARLES E. FRANKFORT)
Administrative Patent Judge)

J. P. McQuade

JOHN P. MCQUADE)
Administrative Patent Judge)

Jennifer D. Bahr

JENNIFER D. BAHR)
Administrative Patent Judge)

) BOARD OF PATENT
APPEALS
AND
INTERFERENCES

Appeal No. 2005-1906
Application 09/588,788

Tung & Associates
838 W. Long Lake Road
Suite 120
Bloomfield Hills, MI 48302